PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
    TARA L. ALVAREZ, ET AL.

Serial No.: 09/699,773

Filed: October 30, 2000

For: DYNAMIC LATENCY ASSIGNMENT
    METHODOLOGY FOR BANDWIDTH
    OPTIMIZATION OF PACKET FLOWS

Examiner: C. Shah

Group Art Unit: 2664

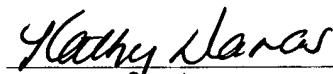Att'y Docket: 2100.011400

Customer No. 046290

APPEAL BRIEF

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

    Appellants hereby submits this Appeal Brief to the Board of Patent Appeals and Interferences in response to the final Office Action dated May 3, 2005. A Notice of Appeal was filed on August 1, 2005 and so this Appeal Brief is believed to be timely filed.

    It is believe a fee of $500.00 is due. Enclosed is a check. Should the check be inadvertently omitted the Commissioner is authorized to deduct the fee for filing this Appeal Brief ($500) from **Williams, Morgan & Amerson's P.C. Deposit Account 50-0786/2100.011400.** Should additional fees be required, the Commissioner is authorized to deduct any and all fees from Williams, Morgan & Amerson's P.C. Account 50-0786/2100.011400.

I.   REAL PARTY IN INTEREST

The present application is owned by Lucent Technologies, Inc. The assignment of the present application to Lucent Technologies, Inc., is recorded at Reel 11280, Frame 0925.

II.   RELATED APPEALS AND INTERFERENCES

Appellants is not aware of any related appeals and/or interferences that might affect the outcome of this proceeding.

III.   STATUS OF THE CLAIMS

Claims 1 and 3-15 are pending in the present application. Claim 1 stands rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Proctor, et al (U.S. Patent No. 6,205,125). Claims 3-15 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor in view of Ellis, et al (U.S. Patent No. 5,497,371).

IV.   STATUS OF AMENDMENTS

There were no amendments after the final rejections.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 sets forth a method for transmitting delay sensitive information (DSI) over a communication link of a communication network. The method includes transmitting an initial DSI after applying a delay to the initial DSI where the delay is based on a determined periodicity of received DSI. Claim 13 sets forth an apparatus for transmitting DSI and NDSI over a communication link of a communication network. The apparatus applies a delay to received

initial DSI based on a determined periodicity of the received DSI and a defined length of NDSI

being transmitted. One exemplary embodiment of the present invention is described from line 5

to line 22 on page 13 of the specification. As defined in the specification, the periodicity is the

basic timing relationship between consecutive packets or groups of packets produced by

sampling DSI signals (such as voice signals) at a predetermined sampling rate. See Patent

Application, page 10, ll. 9-21.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant respectfully requests that the Board review and overturn the two rejections

present in this case. The following issues are presented on appeal in this case:

(A) Whether claim 1 is anticipated by Proctor; and

(B) Whether claims 3-15 are obvious over Proctor in view of Ellis.

VII.   ARGUMENT

A.   Legal Standards

An anticipating reference by definition must disclose every limitation of the rejected

claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d

1566, 1567 (Fed. Cir. 1990).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, the

prior art reference (or references when combined) must teach or suggest all the claim limitations.

In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).   Second, there must be some

suggestion or motivation, either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify the reference or to combine reference

teachings. That is, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. Third, there must be a reasonable expectation of success.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellants's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. A recent Federal Circuit case emphasizes that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. Moreover, it is the claimed invention, <u>as a whole</u>, that must be considered for purposes of determining obviousness. A mere selection of various bits and pieces of the claimed invention from various sources of prior art does not render a claimed invention obvious, unless there is a suggestion or motivation in the prior art for the claimed invention, <u>when considered as a whole</u>.

It is by now well established that teaching away by the prior art constitutes *prima facie* evidence that the claimed invention is not obvious. *See, inter alia, In re Fine*, 5 U.S.P.Q.2d

(BNA) 1596, 1599 (Fed. Cir. 1988); *In re Nielson*, 2 U.S.P.Q.2d (BNA) 1525, 1528 (Fed. Cir. 1987); *In re Hedges*, 228 U.S.P.Q. (BNA) 685, 687 (Fed. Cir. 1986).

B.   Claim 1 is not anticipated by Proctor.

Proctor describes a method for determining a transmission time for information packets in a communication system. The Examiner alleges that Proctor teaches that a time delay is determined based on <u>a determined periodicity</u>, as set forth in independent claim 1 of the present invention. Appellants respectfully disagree. As discussed above and as defined in the specification, the <u>periodicity</u> is the basic timing relationship between consecutive packets or groups of packets, which may be produced by sampling DSI signals (such as voice signals) at a predetermined sampling rate. See Patent Application, page 10, ll. 9-21.

Proctor appears to be completely silent with regard to any <u>periodicity</u> associated with information packets that may be transmitted and/or received by the communication system. In contrast, Proctor teaches a CDMA system that uses a speech coding algorithm that generates variable speech packet sizes that are directly related to the amount of speech activity at a given time. See Proctor, col. 1, ll. 41-44. Proctor does not describe generating packets during speaker silence, so there does not appear to be any <u>periodicity</u> (as defined in the present application) in the packets generated using the CDMA system described by Proctor.

The "timing relationship" described in Proctor and mentioned by the Examiner refers to the time delay (or delay offset) that is to be imposed on the transmitted packets. Proctor also teaches that packets are placed into a section of the circular data buffer 380 based upon the packets' delay offset. Packets in the circular data buffer 380 are later transmitted serially according to their position in the circular data buffer 380 so that the packets are transmitted with

approximately the associated delay offset. See Proctor, Figure 4 and related discussion. Thus, Appellants respectfully submit that the timing relationship described by Proctor is not related to any periodicity associated with the packets.

In response to this argument, the Examiner argues in the Final Office Action that each speech frame represents 20 ms of speech, which corresponds to a determined periodicity. Appellants respectfully disagree and note that the length of an individual speech frame is immaterial to the determination of a periodicity, as defined in the specification. In particular, the periodicity defined in the specification is the basic timing relationship between consecutive packets or groups of packets. Moreover, Proctor teaches that packet based transmission protocols typically suffer from a large variance in transmission delay. See Proctor, col. 1, ll. 47-62. Accordingly, Appellants submit that the speech frames described by Proctor are not transmitted with any particular periodicity.

The Examiner also argues in the Final Office Action that the features upon which the above arguments are based are not recited in the claims. Appellants respectfully disagree and note that claim 1 explicitly sets forth applying a delay that is determined based on a determined periodicity of received DSI. The term "periodicity" is defined in the specification, as discussed above. Thus, Appellants respectfully submit that the limitations upon which the above arguments are based do not require that limitations from the specification be read into the claims.

For at least the aforementioned reasons, Appellants respectfully submit that claim 1 is not anticipated by Proctor and request that the Examiner's rejection of claim 1 under 35 U.S.C. § 102(e) be REVERSED.

C. Claims 3-15 are not obvious over Proctor in view of Ellis.

As discussed above, Proctor fails to teach or suggest a delay based on a determined periodicity, as set forth in independent claims 1 and 13. The Examiner relies on Ellis to teach a packet fragmentation protocol. However, Ellis, like Proctor, fails to teach or suggest a delay based on a determined periodicity.

Furthermore, neither Proctor nor Ellis provides any suggestion or motivation to modify the reference or to combine reference teachings to arrive at Appellants' claimed invention. In contrast, as discussed above, Proctor teaches a CDMA system that generates variable speech packet sizes that are directly related to the amount of speech activity at a given time. Appellants submit that Proctor does not appear to generate packets during speaker silence. Thus, the generated packets do not have a periodicity. See Proctor, col. 1, ll. 41-44. Assuming for the sake of argument that the generated packets did have a periodicity (and Applicants reaffirm that the packets described in Proctor do not), ordering the packets in the circular data buffer 380 according to the associated delay offset, as taught by Proctor, would destroy any pre-existing periodicity in the packets. Accordingly, Applicants submit that the cited references fail to provide any suggestion or motivation for a delay based on a determined periodicity.

Moreover, Proctor teaches away from the present invention by teaching that packet based transmission protocols typically suffer from a large variance in transmission delay. See Proctor, col. 1, ll. 47-62. Accordingly, Appellants submit that Proctor teaches that the speech frames are not transmitted with any particular periodicity and therefore teaches away from transmitting an initial DSI after applying a delay to the initial DSI where such delay is based on a determined periodicity of received DSI, as set forth in independent claims 1 and 13.

For at least the aforementioned reasons, Applicants respectfully submit that the present invention is not obvious over Proctor in view of Ellis and request that the Examiner's rejections of claims 3-15 under 35 U.S.C. § 103(a) be <u>REVERSED</u>.

VIII. CLAIMS APPENDIX

The claims that are the subject of the present appeal – claims 1 and 3-15 – are set forth in the attached "Claims Appendix."

IX.   EVIDENCE APPENDIX

There is no separate Evidence Appendix for this appeal.

X.   RELATED PROCEEDINGS APPENDIX

There is no Related Proceedings Appendix for this appeal.

XI.   CONCLUSION

In view of the foregoing, it is respectfully submitted that the Examiner erred in not allowing all claims pending in the present application, claims 1 and 3-15, over the prior art of record. The undersigned may be contacted at (713) 934-4052 with respect to any questions, comments or suggestions relating to this appeal.

Respectfully submitted,
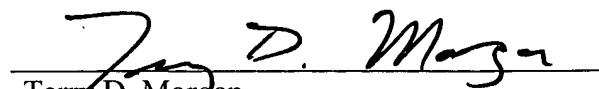
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CLAIMS APPENDIX

1.   (Previously Presented) A method for transmitting DSI over a communication link of a communication network, the method comprising the steps of:

transmitting an initial DSI after applying a delay to the initial DSI where such delay is based on a determined periodicity of received DSI.

2.   (Canceled)

3.   (Previously Presented) The method of claim 1, comprising transmitting NDSI over the link of the communication network, wherein the delay is further based on a defined length NDSI being transmitted.

4.   (Original) The method of claim it 1 where the step of transmitting DSI comprises:

transmitting and DSI in a non-fragmented manner when there are no DSI to be transmitted;

monitoring for any received DSI;

determining whether a received DSI is an initial DSI;

transmitting the received DSI as per its periodicity when such received DSI is not an initial DSI; and

performing a fragmentation operation for NDSI to be transmitted or for NDSI being transmitted.

5. (Original) The method of claim 4 wherein the fragmentation operation performed is a dynamic fragmentation operation.

6. (Original) The method of claim 4 where the step of determining whether a received DSI is an initial DSI is based on information received from communication equipment.

7. (Original) The method of claim 4 where the step of transmitting the DSI as per its periodicity is based on information received from communication equipment.

8. (Original) The method of claim 6 where the communication equipment is an IAD.

9. (Original) The method of claim 6 where the communication equipment is subscriber equipment.

10. (Original) The method of claim 7 wherein the communication equipment is an IAD.

11. (Original) The method of claim 7 where the communication equipment is subscriber equipment.

12. (Original) The method of claim 1 further comprising the steps of:

maintaining a list of transmission times for received initial DSI;

establishing a transmission time for each received initial DSI; and

updating the list when an initial DSI is received or when a DSI flow is terminated.

13. (Original) An apparatus for transmitting DSI and NDSI over a communication link of a communication network where the apparatus applies a delay to received initial DSI based on a determined periodicity of the received DSI and a defined length of NDSI being transmitted.

14. (Original) The apparatus of claim 13 configured as an IAD coupled to subscriber equipment and to an access network.

15. (Original) The apparatus of claim 13 configured as part of host equipment where such host equipment is coupled to an access network and to a packet based communication network.